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A New Species of *Sericophorus* from New Guinea (Hymenoptera: Sphecidae: Larrinae)

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Abstract.—*Sericophorus rhamphigaster,* a new species known only from females, is described from New Guinea. Its unusual morphology is illustrated by SEM photographs.

The genus *Sericophorus* is endemic to the Australasian Region where it is known from about 70 species, nearly all of which are known only from Australia (including Tasmania) (Bohart and Menke, 1976). Those authors indicated that the genus occurred in New Guinea but the record was based on a single unidentified specimen. I recently found a series of females of a new species of *Sericophorus* from New Guinea in the collection of the American Entomological Institute, Gainesville, Florida. I am describing it now because of its peculiar morphology. Pulawski (1989) is describing the first representative of the genus from New Caledonia.

The new species agrees with the generic description in Bohart and Menke (1976) and runs to *Sericophorus* in Menke's (1977) key to the genera of the Miscophini. It keys to the subgenus *Zoyphidium* in Bohart and Menke (1976), as does *rhinoceros* Pulawski from New Caledonia.

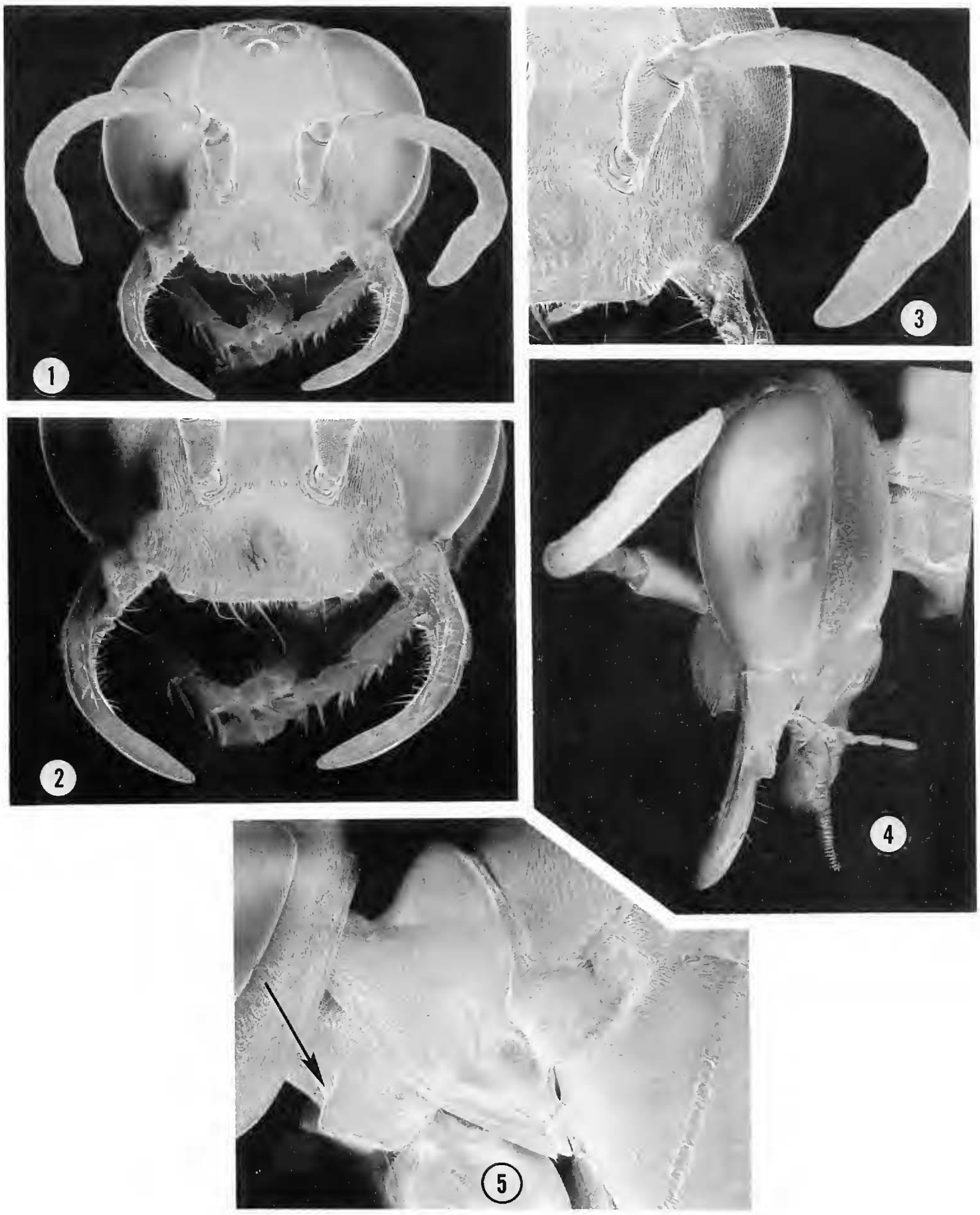
The SEM photographs used here were made from an uncoated specimen using the technique described in Menke (1988).

I would like to thank Woj Pulawski, California Academy of Sciences, San Francisco, for reading the ms. and offering suggestions for improvement.

Sericophorus rhamphigaster Menke, New Species

Female.—Black but with extensive pale coloration; following whitish yellow: scape, pedicel, clypeus, labrum, mandible except apical half and inner teeth reddish or brownish, palpi, collar and pronotal lobe, scutellum, metanotum, forecoxa beneath; following amber: tegula, all legs from trochanter to tip (arolium dark), gastral segments I–II, and basal half of tergum III; distal flagellomeres yellowish brown beneath, this coloration sometimes extending to flagellomere I or II as small, indistinct spots. Wings weakly infumate but marginal cell conspicuously darker, veins dark brown. Lower frons and clypeus laterally with appressed gold setae that obscure sculpture; similar but sparser setae at hindmargin of scutellum, on propodeum, and on mesopleuron.

Inner orbits converging above (Fig. 1), eye facets enlarged near middle of inner orbit (Figs. 1–3); flagellomere I two thirds length of II, flagellomere III longer than II or IV (15:19:14.5), flagellomere X more than 3× as long as greatest width (37:13) (Fig. 3); sparsely setose clypeal disk strongly elevated (Fig. 4), clypeal lobe



Figures 1–5. Details of *Sericophorus rhamphigaster*. 1. Front view of head. 2. Clypeus and mandibles. 3. Left antenna. 4. View of left side of head. 5. Left side of prothorax. Arrow points to propleural boss.

not delimited laterally by teeth, its margin truncate (Fig. 2), double-edged laterally in ventral view; labrum narrowly transverse but partially projecting beyond clypeal margin when downfolded; unworn mandible long, narrow, sickle-shaped (Figs. 1, 2), with two subbasal teeth on inner margin, with step-like notch on posterior margin (Fig. 4). Pronotum with shallow, dorsomedial, transverse impression be-

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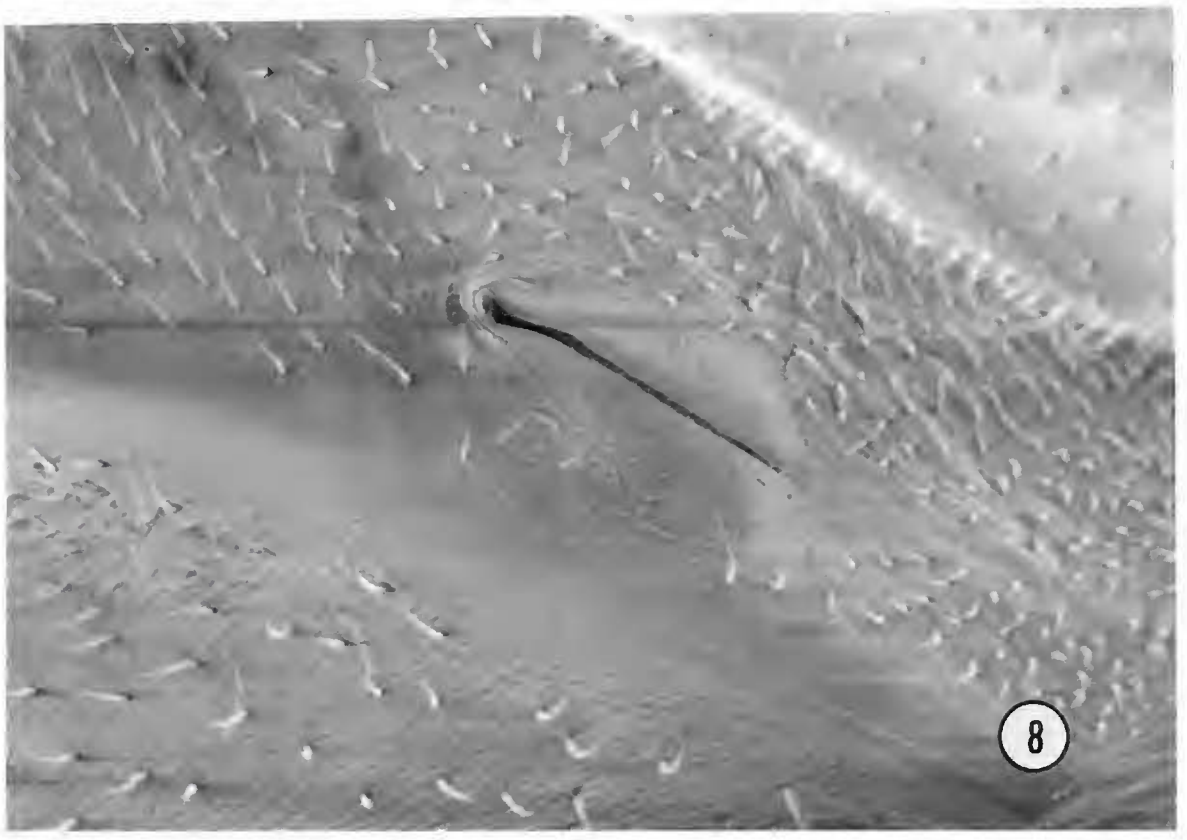
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hind anterior margin which is sharply delimited cephalad; collar with slight transverse elevation at middle but not impressed there; scutum dull, densely punctate, punctures less than diameter apart; scutellum similarly punctate; propleuron with high angular prominence posterolaterally (Fig. 5); mesopleuron shiny, very finely punctate; propodeal side shiny, with very sparse pin prick punctation, not delimited dorsad by carina; propodeal dorsum with median longitudinal sulcus that contains carina on basal half; base of tergum I with two carinae, spiracular opening slit-like (Fig. 8) but spiracle not borne on process; pygidial carinae confined to apical half of tergum VI; sternum I with subapical hook-like process that overhangs sternum II (Figs. 6, 7); sterna II–V smooth, shiny but with some punctation laterally, punctures of several sizes. Marginal cell of forewing acuminate apically, second submarginal cell 4 sided, its anterior veinlet about as long as ocellus diameter, recurrent veins received by submarginal cells I and II respectively, forewing media diverging from M+Cu before cu–a. Foretarsomere I with 8 rake spines. Length 10–11 mm.

Male.—Unknown.

Types.—Holotype female: NEW GUINEA, Western Highlands Prov.: Baiyer River, Feb. 6/25, 1979, 1100 m, J. Sedlacek (American Entomological Institute). Paratypes, 13 females: same data as type except 5 collected Jan. 25 to Feb. 6, 1979.

Discussion.—*Sericophorus rhamphigaster* is an elongate, distinctively bicolored wasp. The hook-like process on sternum I of the female is the most unusual unique feature of this species (Figs. 6, 7). In the Sphecidae such adornments are typically found in males (on sterna II of some *Larrisson* and *Bembix* for example), and it is surprising to find this kind of specialization in the female. The female of *Sericophorus rhinoceros* Pulawski has a convex midventral ridge on sternum I but its location is more basal than the hook of *rhamphigaster.* The angular propleural boss of *rhamphigaster* is another unique feature (Fig. 5). The absence of teeth on the clypeal margin is atypical for the genus but *rhinoceros* Pulawski shares this trait. The elongate, sickle-shaped mandible is perhaps unique to *rhamphigaster.* The spiracle on tergum I is slit-like (Fig. 8) but it is not situated on a prong as in *sericeus* (Kohl) and *rhinoceros* Pulawski. In the few species of *Sericophorus* available to me from Australia, the spiracle of tergum I is of the typical oval form rather than slit-like. The enlargement of the eye facets is distinctive but may not be unique, although the facets are uniform in the few other *Sericophorus* that I have examined.

The slit-like spiracle of tergum I, the process on sternum I, and the absence of clypeal teeth are features that suggest a possible relationship with *rhinoceros* Pulawski, but the eye facets are not enlarged in the latter species, nor are the mandibles unusually elongate.

Etymology.—The species name, a noun, is based on the Greek words rhamphis (=hook) and gaster (=stomach or belly), and refers to the unusual hook on the underside of the abdomen.

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Figures 6–8. Abdominal structures of *Sericophorus rhamphigaster.* 6. Right profile view of segments I–II. 7. Ventral view of segments I–II. 8. Slit-like spiracle of tergum I, right side.

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